

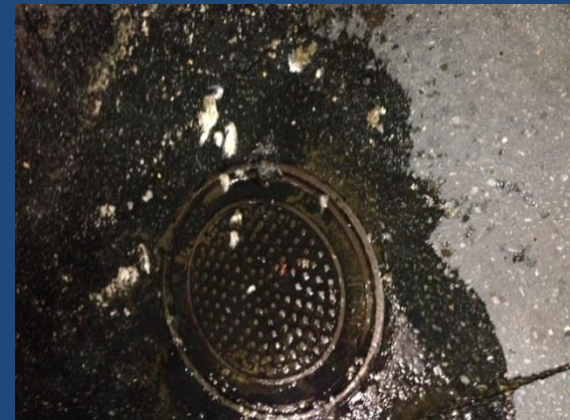


Annual Update

Sanitary Sewer Overflow Reduction Program

**Division of Water Quality
State Water Resources Control Board**

**January 21, 2014
Board Meeting Item # 10**



This Presentation

1. Statewide Sanitary Sewer Systems Waste Discharge Requirements (Statewide Order)
2. Sewer Overflow Data and Trends
3. Compliance and Enforcement
4. Where We Go From Here

Presentation For Agenda Item #13

1. Continued Discussion of Overflow requirements from Regional Water Boards
2. More Staff Recommendations and Conclusions

Statewide Order

- Regulates publicly-owned sewer systems > 1 mile
 - Does not regulate treatment plants or combined sewer systems
- Requires reporting of overflows
- Reporting of private lateral overflows is voluntary
- 1,093 public sewer systems enrolled
- Requires a Sewer System Management Plan

Fiscal Year 2012-2013 Data

- Total 1,093 enrollees
 - ~45% reported one or more sewer overflows
 - ~55% reported no sewer overflows
- 4,840 sewer overflows reported
 - 16% of the sewer overflows reached surface water
- 9 million gallons of sewage overflow reported
 - 66% reached surface water

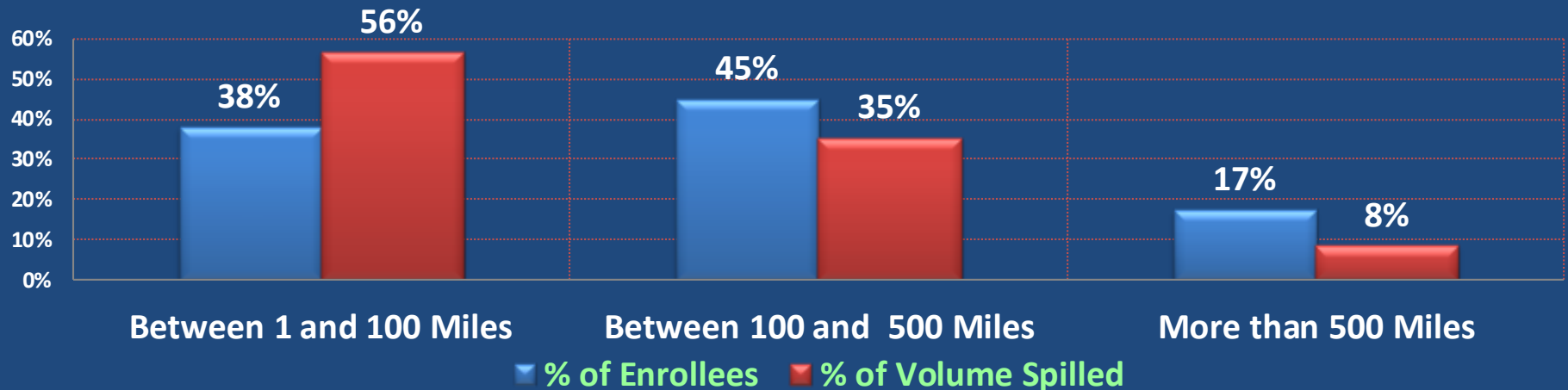
Overflow Trends and Leading Causes of Sewer Overflows

- ~91% of sewer overflows are < 1,000 gallons
 - ~5% of total sewer overflow volumes resulted from these 91% of sewer overflow events
 - Leading causes are roots, fats\oils\grease, and debris
- ~9% of sewer overflows are > 1,000 gallons
 - ~95% of total sewer overflow volumes resulted from these 9% of sewer overflow events
 - Leading causes are capacity and structural issues

Statewide Sewer Overflow Trends

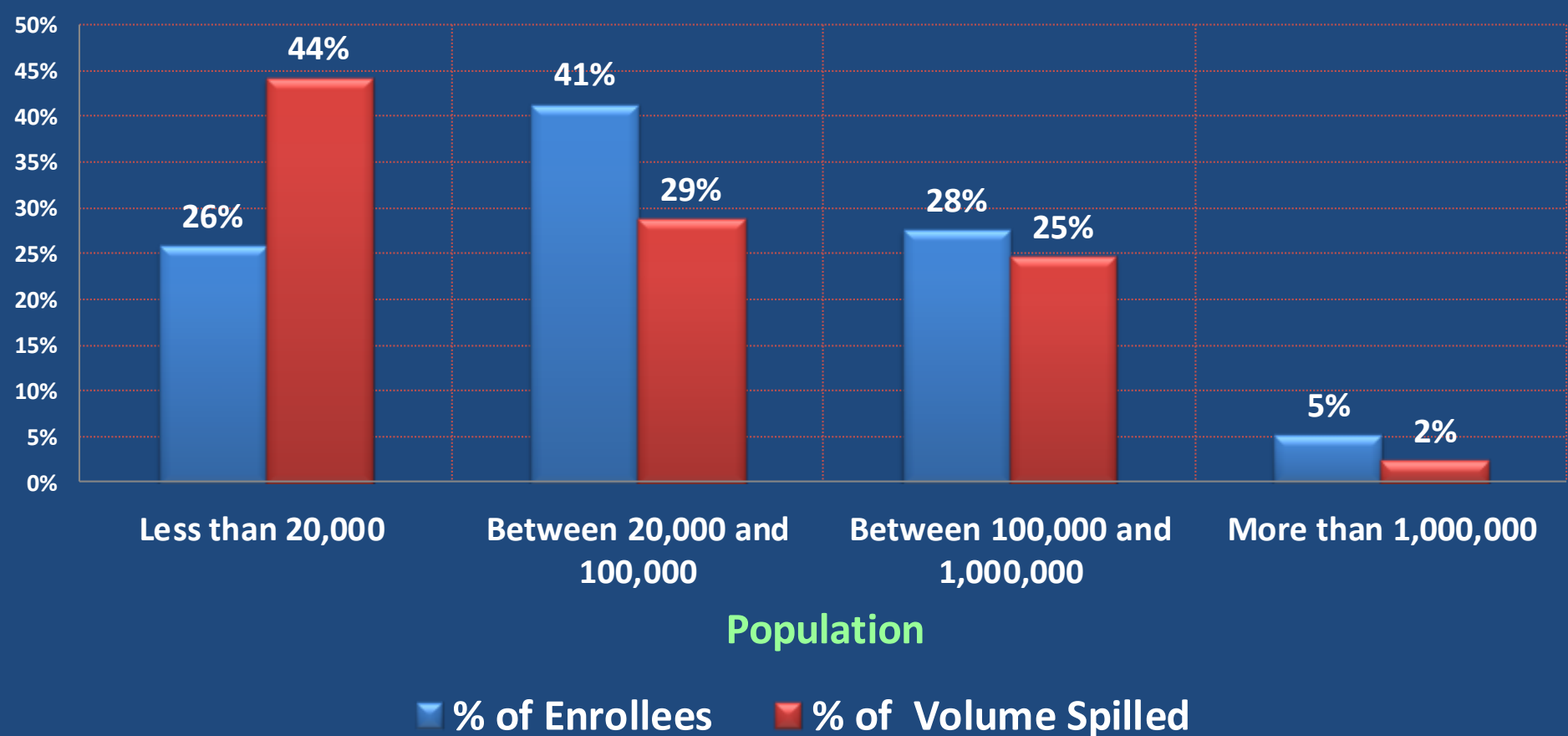
Enrollee and overflow volume contributing to
90 percent spill volume

(shown by collection system length)

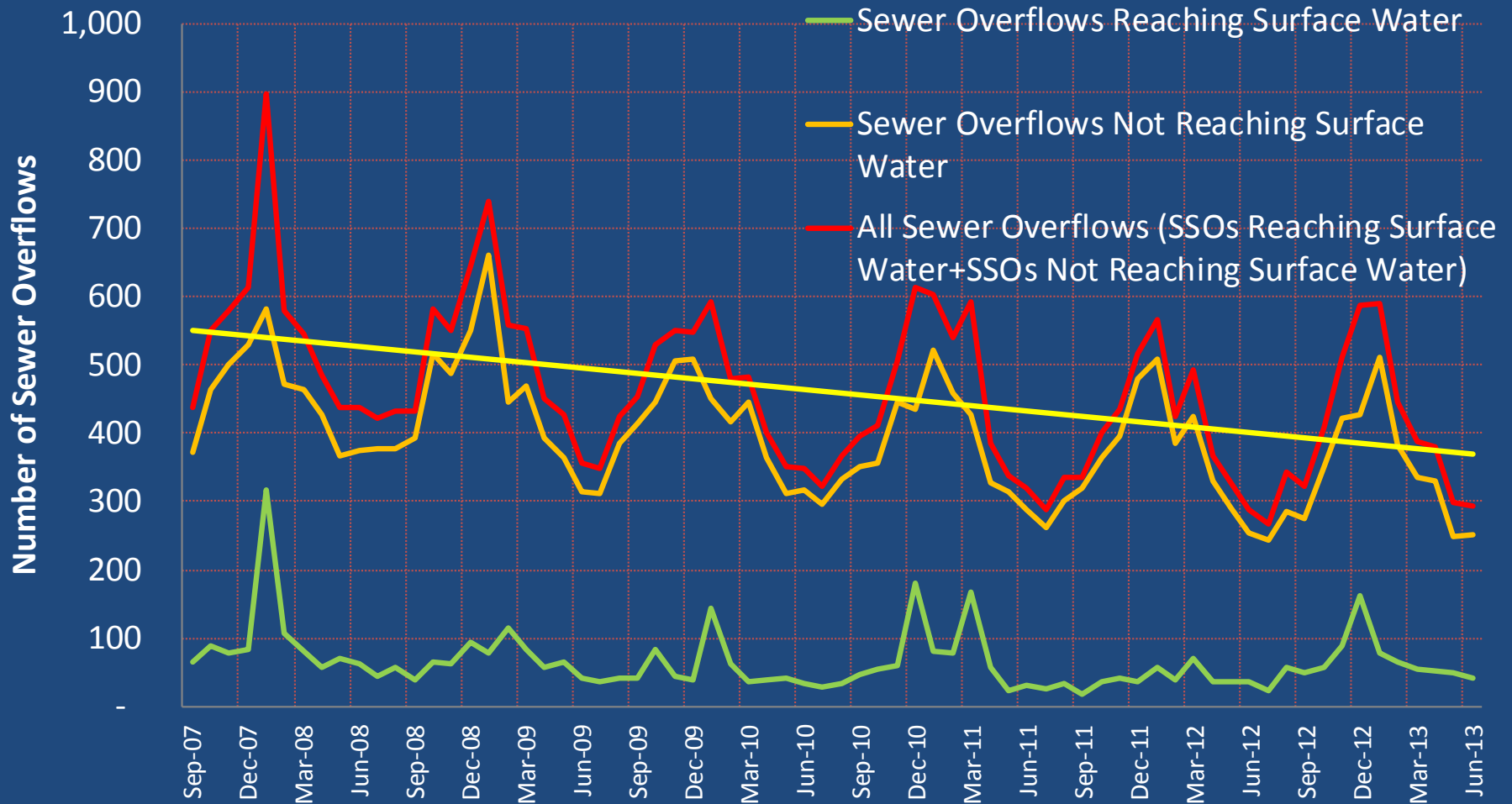


Statewide Sewer Overflow Trends

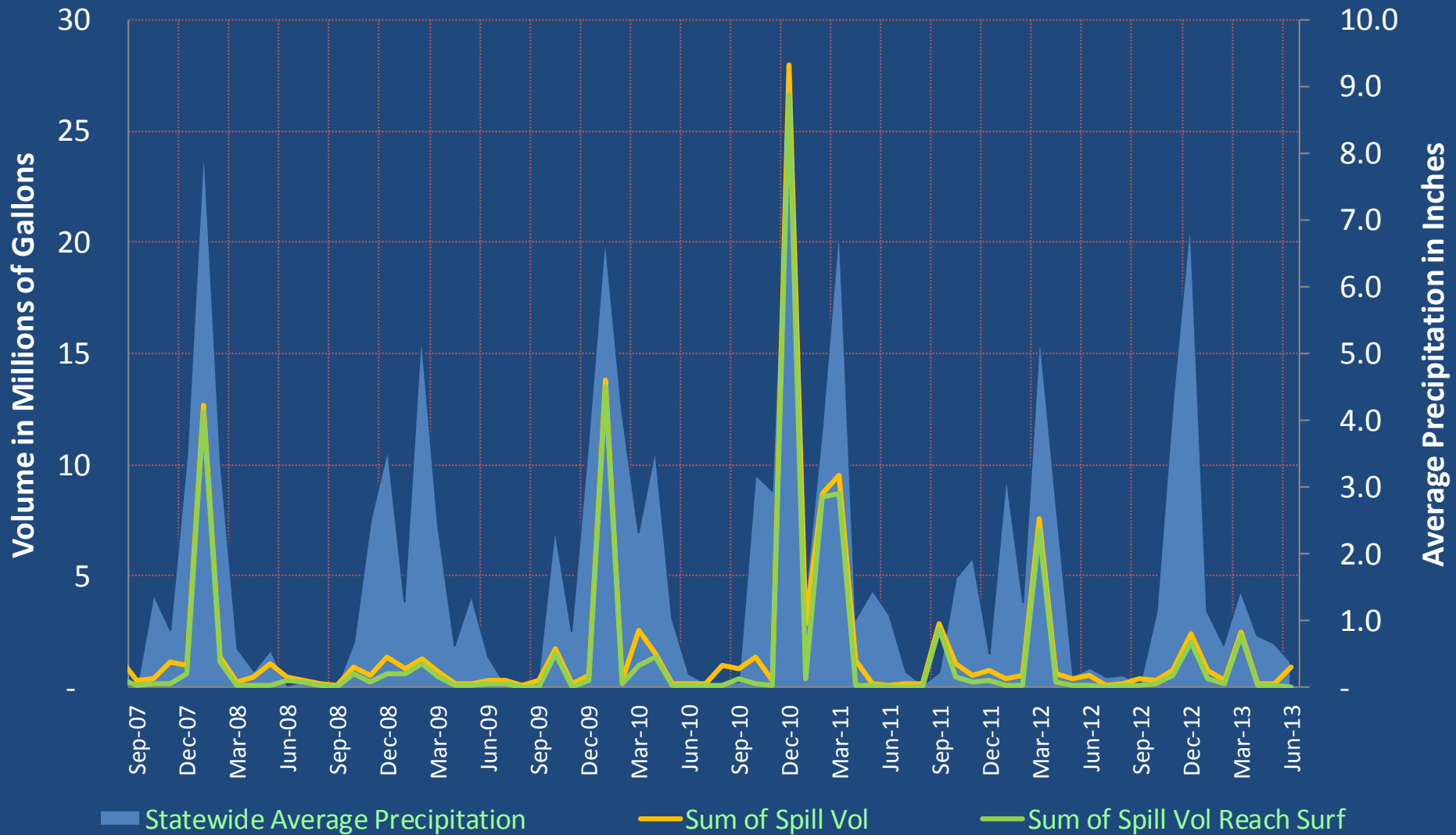
Enrollees and overflow volume contributing
90 percent spill volume



Monthly Sewer Overflows Trend



Sewer Overflow Volume and Precipitation Trends



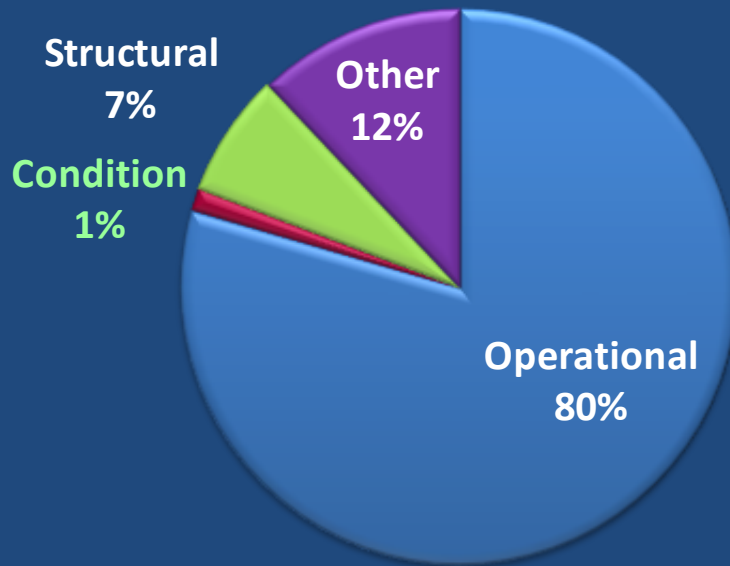
Causes of Sewer Overflows

- Operational
 - Caused by debris; fats, oil, and grease; and roots
- Condition
 - Caused by flow exceeding system capacity
- Structural
 - Caused by pipe and pump station failure
- Other
 - Caused by vandalism, operator error, maintenance, improper installation, valve failure, failure from diversion during construction, siphon failure, inappropriate discharge, and non-sanitary sewer system related flows

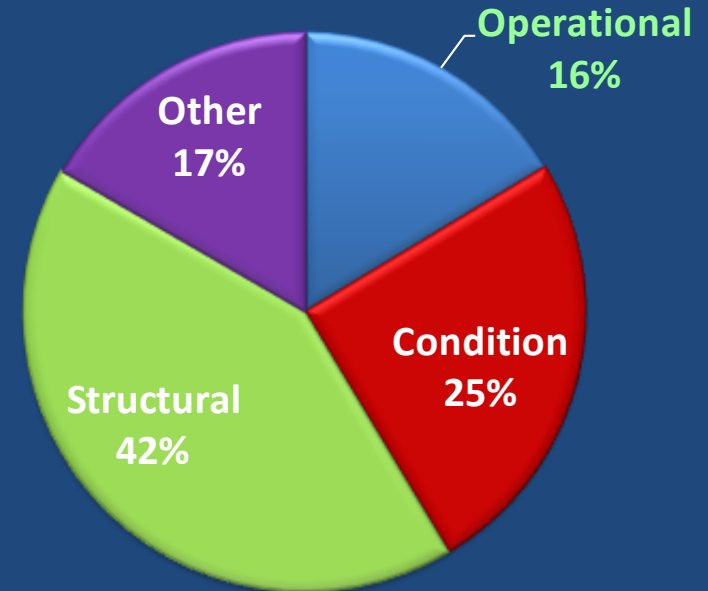
Causes of Sewer Overflows

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Percent of Sewer Overflows by Cause



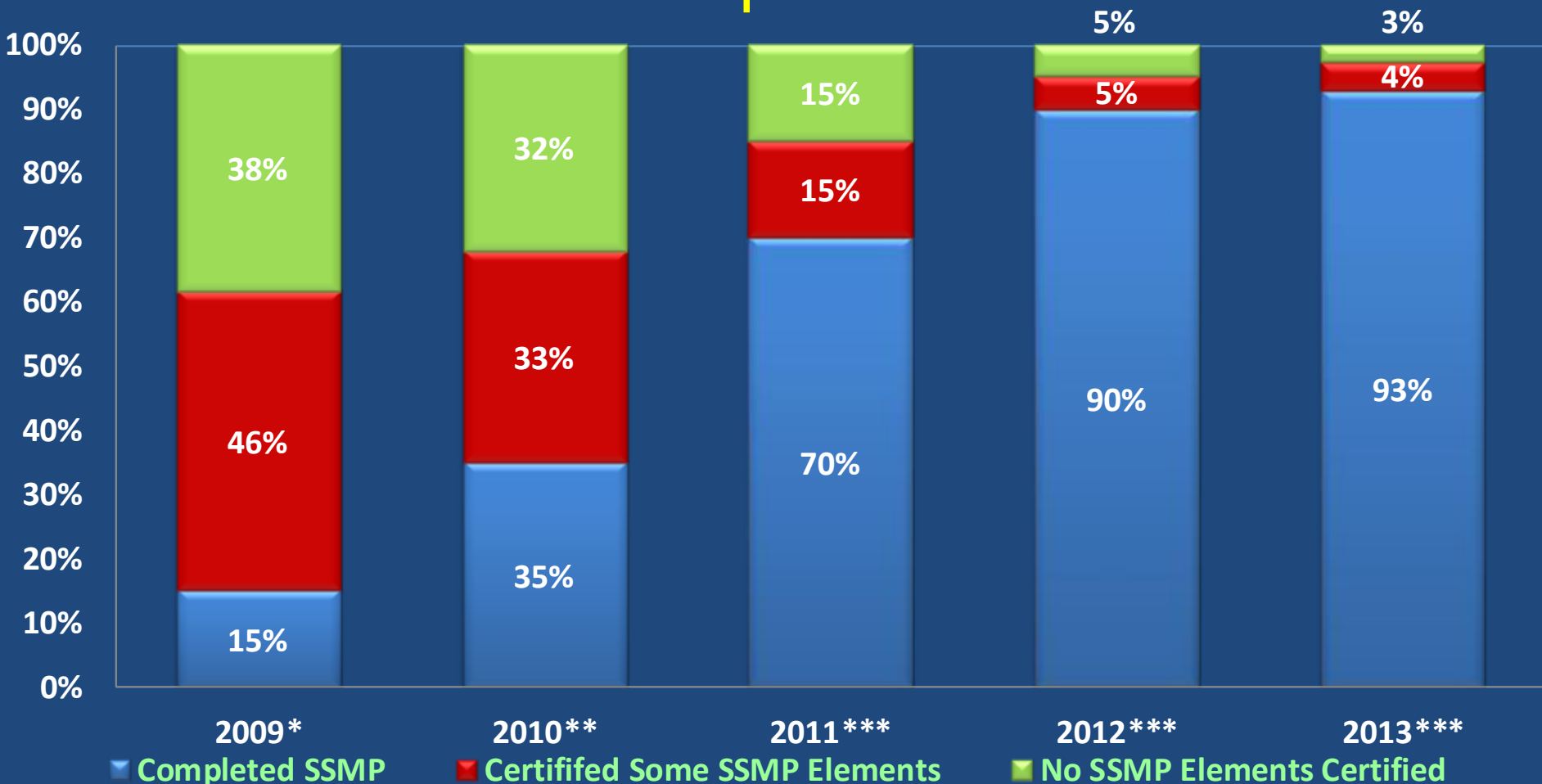
Percent of Sewer Overflow Volume by Cause



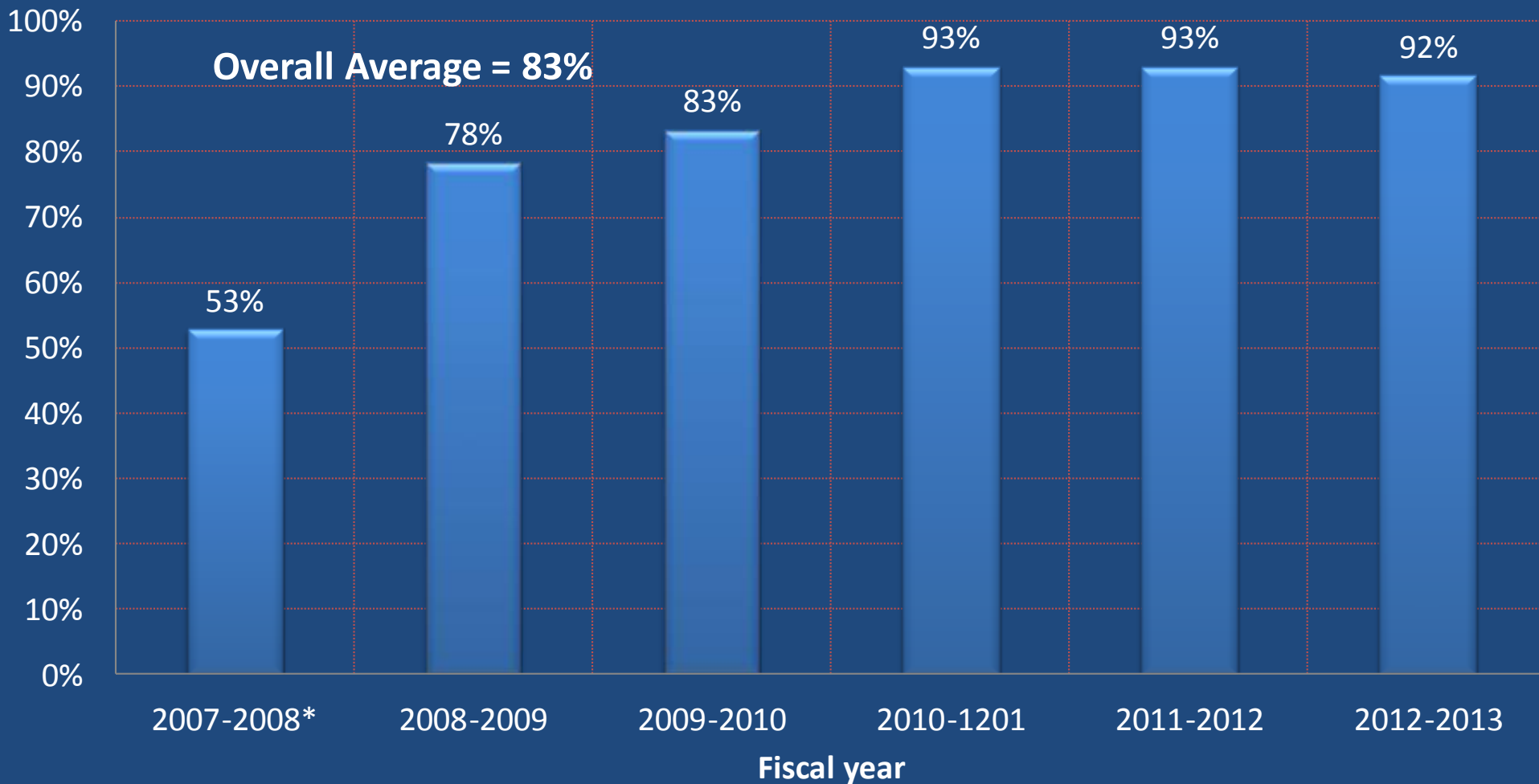
Highest Sewer Overflow by Regions

- Highest numbers of sewer overflows reported:
 - Central Valley (Sacramento Sub-Region)
 - San Francisco Bay region
 - Los Angeles region
 - *Note: Approximately 52 percent of publicly-owned systems*
- Highest sewer overflow volume reported:
 - San Francisco Bay region
 - Central Valley (Fresno Sub-Region)
 - *Note: Inflow and infiltration, and infrastructure issues*
High volume in Fresno area caused by one-time high volume overflow

Sewer System Management Plan Compliance



Compliance with Spill and No-Spill Certification Reporting



* Enrollee reporting began on September 2, 2007. Data range for FY 07-08 is Sept 2007 to June 2008.

FY 2012-2013 Enforcement Activities

- 148 Notices of Violation issued regarding Sewer System Management Plan Requirements
 - 86% have completed all elements of the Sanitary Sewer Management Plan
 - 8 enrollees requested additional time
 - 12 non-responsive referred to Office of Enforcement
- Inspections and Actions
 - 23 public sewer system inspections
 - 137 enforcement actions taken (Violation notices, CWC 13267 Orders, etc.)

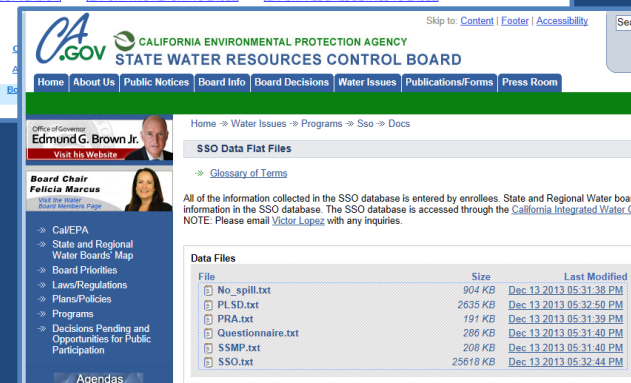
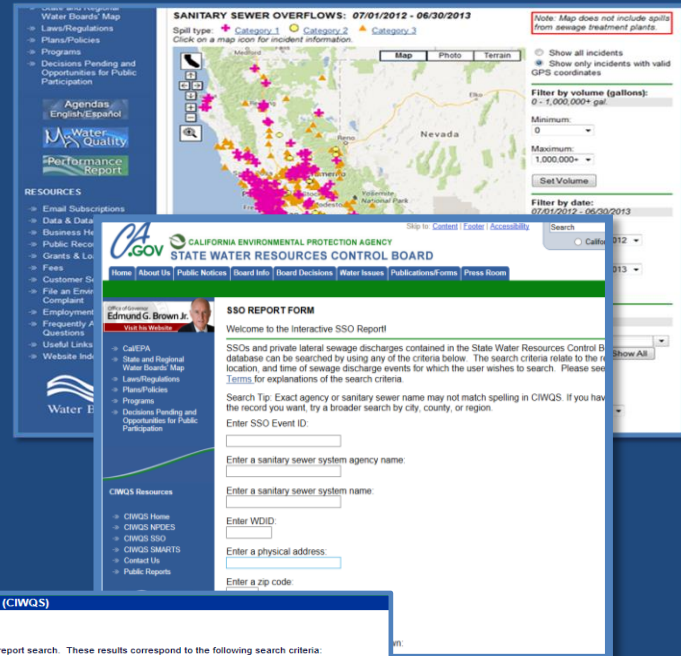
Enforcement Activities

(Continued)

- Improved compliance through increased customer service, outreach and enforcement
 - Monthly email reminders
 - Daily compliance assistance
 - Continued enforcement staff inspections as necessary

Data Availability and Assistance

- All sanitary sewer overflow (SSO) data are publicly available:
 - Upgraded Database
 - Sanitary Sewer Overflow Dischargers' User Guide
 - SSO Incident Maps
 - Interactive SSO Report
 - Operational Report
 - Raw Data



Conclusions and Recommendations

Where do we go from here?

Conclusions

- Permitting and enforcement program elements operating efficiently
- Large data set and experienced Water Board staff

Recommended Next Program Steps

- Identify systems with structural and capacity issues that:
 - Are located in disadvantaged communities
 - May be impacting drinking water quality
 - May threaten Clean Beaches program
 - Are threatening public health and beneficial uses
- Consider sea level rise



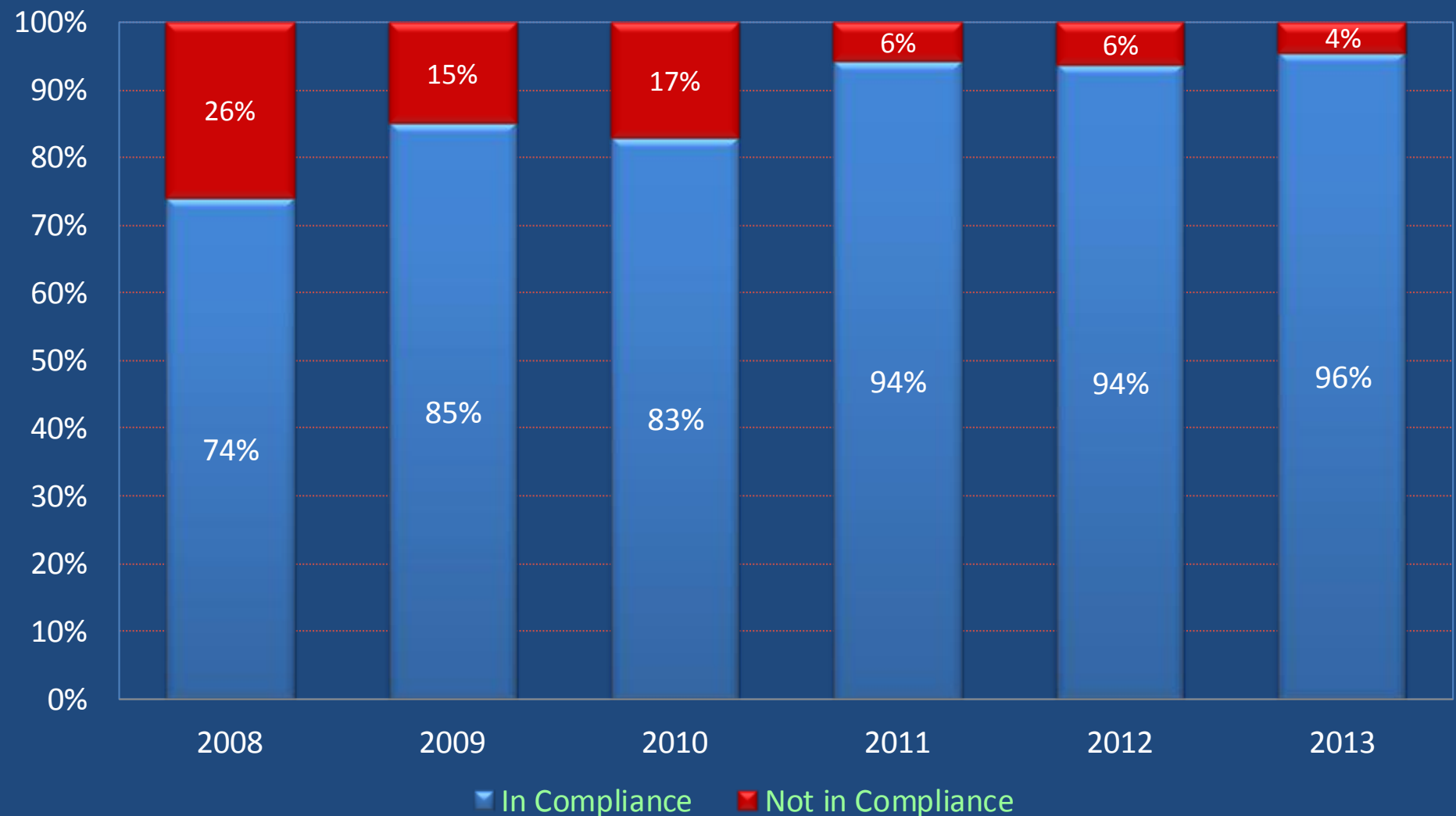
Questions?

Additional Slides for Information

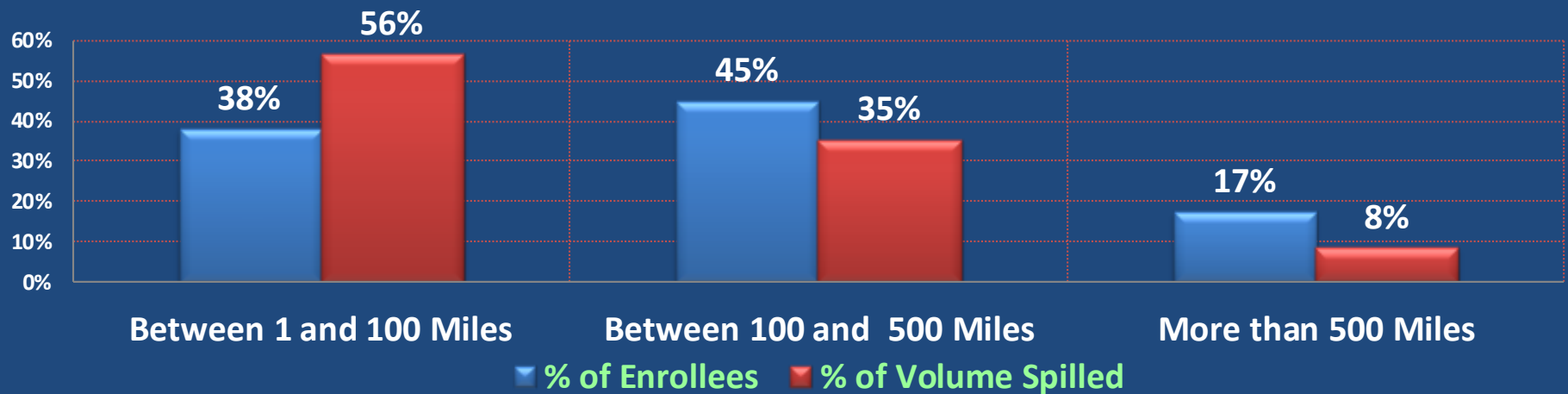
Monitoring and Reporting Program Amendment

- Effective Date of September 9, 2013
 - Water Board Staff Outreach
 - Three workshops in collaboration with California Water Environment Association
 - 171 participants attended workshops
 - Presentations at six local organization events

Sanitary Sewer System Questionnaire Compliance

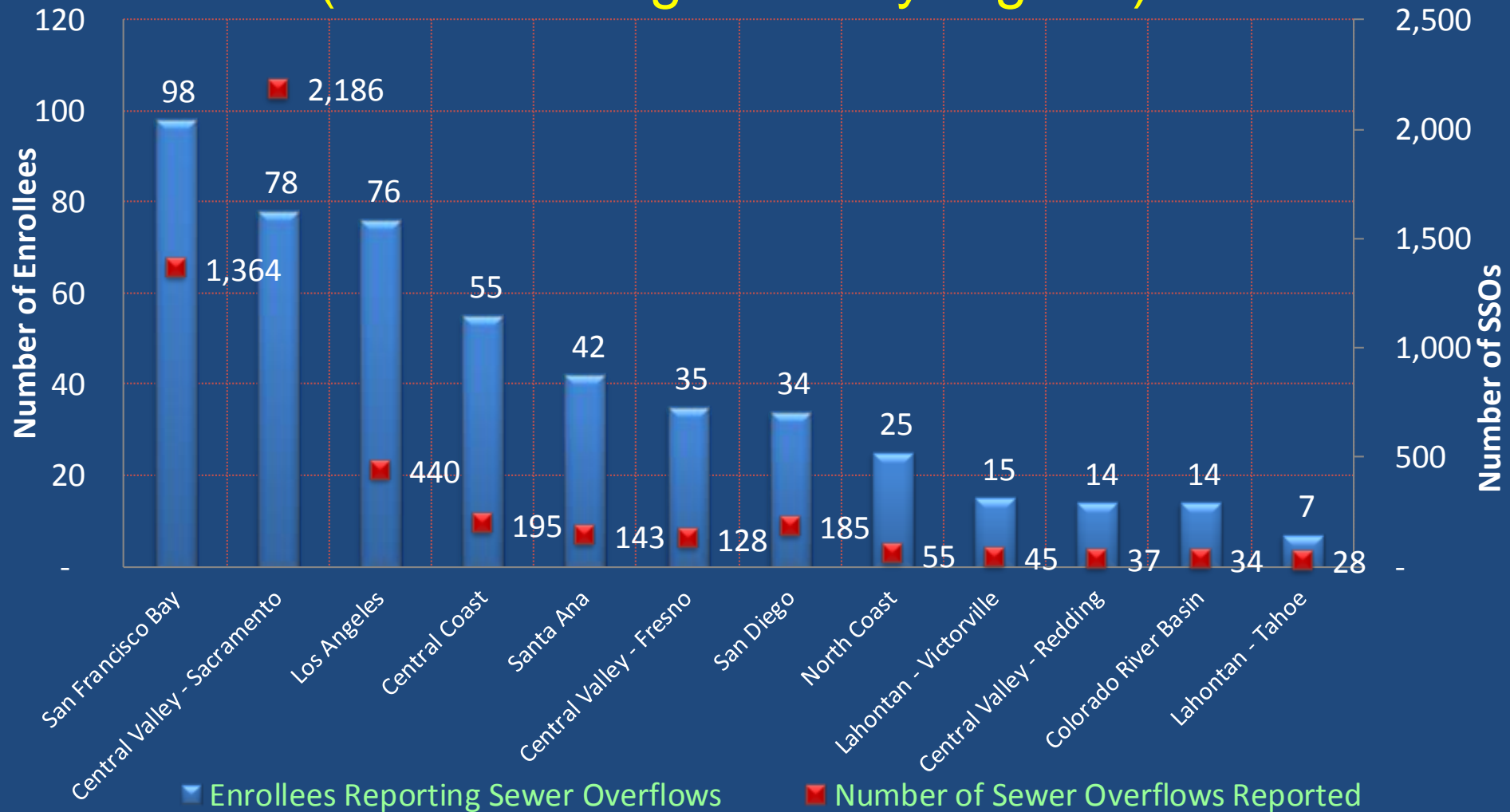


Statewide Sewer Overflow Trends

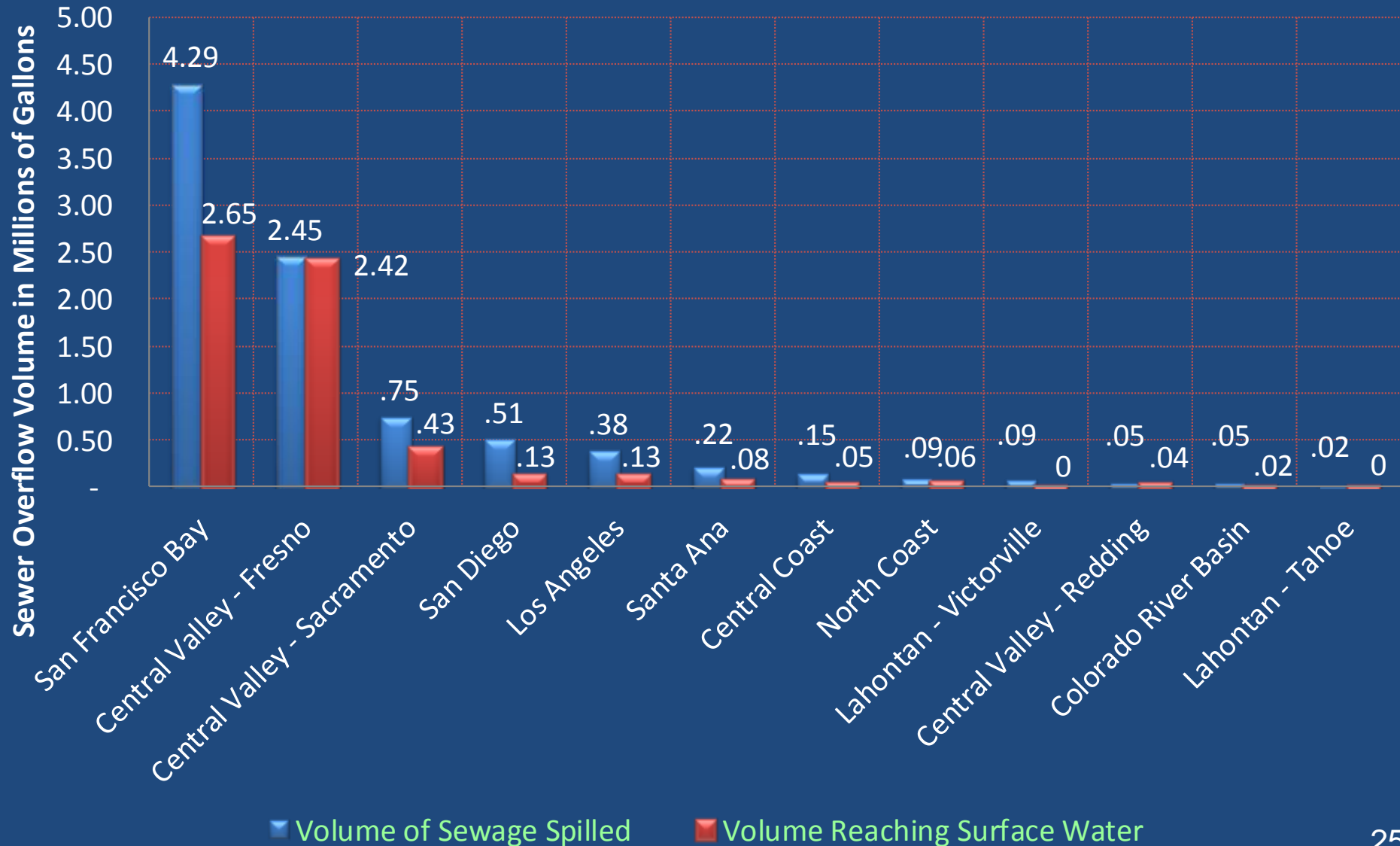


Number of Overflows

(in decreasing order by regions)



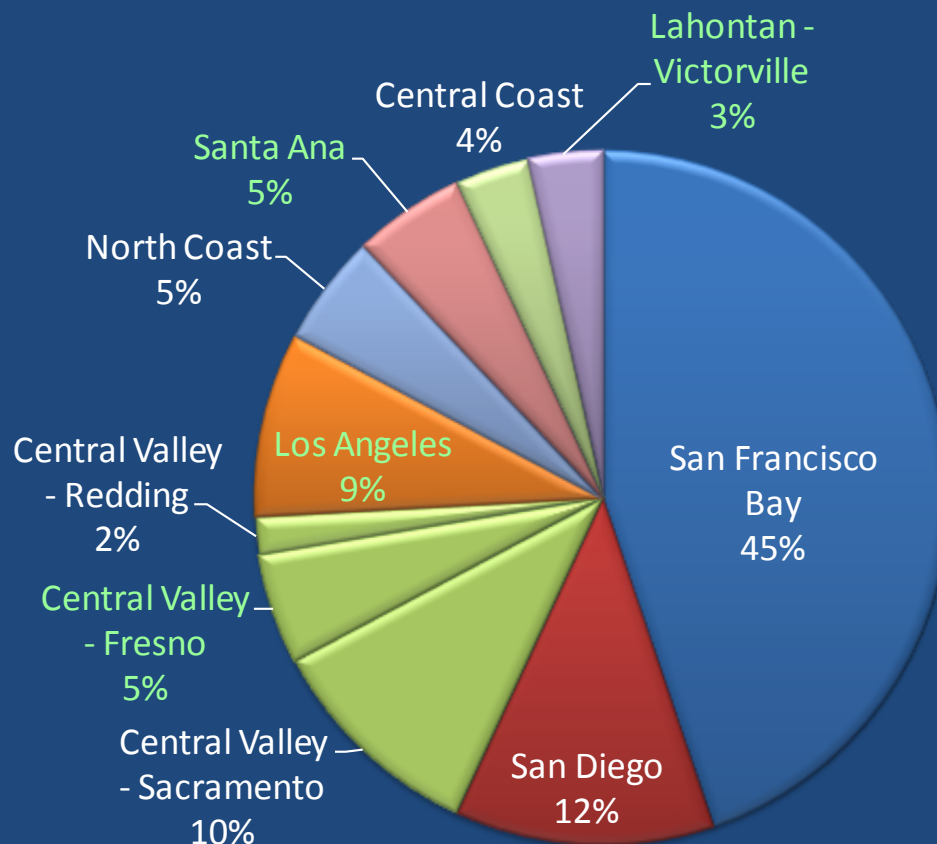
Overflow Volume Spilled (in decreasing order by region)



Statewide Sewer Overflow Data

(continued)

Enrollees contributing > 90 percent spill volume by
Regional Water Board



Statewide Sewer Overflow Data

(continued)

Spill volume contributing 90 percent spill volume by Regional Water Board

